

meeting, a committee was appointed for the purpose of watching over the several railway schemes, so as to prevent any injury being done to the public thoroughfares.

### IRON AND THE IRON TRADE.

ENGLISH iron continues in extensive demand, but without any alteration from the quotation in our last number. Several large transactions have taken place in railway iron, and makers are now asking 12l. and upwards. Scotch pig-iron is not so good; sellers at 93s. 6d. cash. Welsh and Staffordshire pig-iron has been dealt largely in at higher rates. Foreign iron is more inquired for, but holders are not disposed to sell at present, expecting better prices.

At the meeting of iron-masters held in Leeds on the day our last impression went to press, it was agreed that the following price for pig-iron should be confirmed and supported:—No. 1, 6l. 10s.; No. 2, 6l. 3s.; No. 3, 6l. per ton. Nett, three months.

The Glasgow *National* has a long article upon the iron trade of Scotland, with reference to the railways, the facts of which will be found particularly interesting at this period: In October, 1836, nine years ago, pig-iron was quoted at 6l. 10s. per ton. In 1840, the price, in Liverpool, was 4l. 12s. 6d., but it fell in both places, until a large quantity was sold by one large Scotch house at 1l. 10s. per ton. This was the extreme point of retrogression, from which the trade gradually recovered, by an increasing demand in the ordinary business of the country. Two good harvests had left a large amount of spare capital in the country, which the holders were unwilling to place in foreign investments. The reports of the committee of the Board of Trade threw speculators and actual consumers upon the iron market. In September, 1844, pig-iron was readily sold for 2l. 10s. Since that date 6l. per ton has been paid for Scotch pig; but the demand again decreased, and prices receded to less than half that sum. During the weeks when the harvest was in peril the variations in the price of iron were considerable, but it kept on advancing until 14 days ago, when it fell to 4l. 11s. per ton.

The new iron works in Scotland are beginning to create very considerable interest. The forward state of those which were commenced in the spring give promise of some new brands of pig-iron being very soon brought into the market. At Kinneil there are four furnaces completed, and arrangements are making to have them blown in during next month. It is not more than six or seven months since the foundation of this work was laid, which for rapidity of erection, is we believe, unequalled in the history of the iron trade. Eglinton and Lugar are also progressing rapidly to completion, and it is expected will be in blast little later than Kinneil. It will be some time longer before any of the works in Fifeshire can come into operation; but from the well known activity of the enterprising proprietor of the Forth works, there is little doubt that the spring of 1846 will witness the production of metal in this new field on an extensive scale. Other two new iron-works are talked of for the purpose of supplying parties who have hitherto been purchasers of pigs.

**PRACTICAL HINTS FOR NEW RAILWAY COMPANIES.**—The following hints gleaned from experience may be of service to new companies. To make the flanges to the wheels much deeper, as such will be more secure and cause no more friction, as they would still touch the rail only at one point. To make very moderate stations in the first instance, but so to construct them that they may hereafter be enlarged. To point the name of the station on the walls, so as to save the expense of the two large standard boards, which cost at least 25l. at each station. The word "station" is also useless. To place mile-stones only at each mile, but larger, and not at each quarter. To give the superintendents a uniform, that they may be easily known. To ring a bell when the train is to go on, and not to call out as many do. To swear in all the police, porters, &c., as constables.

### PROJECTED BRIDGES.

THE North Kent Railway, as proposed, will cross the Medway at Rochester, by means of an iron bridge, about 600 feet long, very near to the present bridge, and at an elevation of about 25 feet above high water. The *Pictorial Times* says:—"It will be the second instance on record of a bridge combining a common roadway with a railway path. It is a plan which will no doubt be carried out to a considerable extent in the new railway undertakings, as it saves at least one-third of the expense of erecting two edifices, and the stability is much greater by this arrangement. It has sometimes been considered as an objection to bridges of this span, that the effects of the expansion and contraction of the metal would tend most materially to impair the stability of the structure; but in the case of the bridge before us, no inconvenience of that kind can result, as a perfect freedom of motion is permitted between the iron and stone work of the edifice. A complete line of demarcation is effected between the carriage road and railway by a barrier of iron about twelve feet in height, so that not the least annoyance can be felt by those who traverse the public road. The stone abutments are intended to rest on substantial piles driven into the bed of the river, which has been bored to ascertain the character of the soil. The stream formerly ran with great violence through the arches of the old bridge, but this inconvenience was, a few years back, much diminished by an increase in the water-way; and a still greater improvement will be effected in this respect by the adoption of the present bridge."

Relative to a bridge proposed to cross the Severn, six miles long, a correspondent of the *Mining Journal* suggests that, for railway purposes, a powerful floating-bridge might be used, of sufficient length to take the whole train, either with or without the engine. "A stationary engine might be erected on each side of the river, both for assisting in the propulsion of the bridge, as well as for hauling the trains up to the level railway; the principal moving power for transporting the bridge would be marine engines, and paddles, similar to the one at Portsmouth; and, with the assistance of the stationary engine, such a bridge would cross the Severn at the rate of twenty miles an hour."

The proposed Ranelagh Suspension bridge, to cross the Thames between Battersea and Vauxhall, is to consist of two arcs of suspension, with a tower in the centre of the river, where there is to be a steam-boat pier. The style of the design is Gothic.

### RAILWAY STREETS.

THE question of adopting railway viaducts to street traffic, so as to improve, instead of deteriorating, the property they pass over, and diminish the cost of their construction by the proceeds of new building frontages, will receive a practical solution in the experiment about to be tried on a grand scale, by the Thames Embankment and Railway Junction Company. The object of this Company (promoted by the Earl of Devon) is, to form a thorough communication with the railways entering the metropolis from the east and west, and to connect them by a railway bridge with the lines approaching the Thames from the north and south. One part of this object it is proposed to effect by a railway embankment between Hungerford-market and Blackfriars-bridge, where the river is broad and shallow; but it was left open for consideration, on the formation of the Company, whether the railway in passing to the east of Blackfriars-bridge should continue in front of the wharves, or, leaving the river at that point, proceed behind the wharves in a line parallel with them between Thames-street and Cannon-street, to the Blackwall Railway at or near the Minories. The latter course has at last been determined upon, after a careful survey of the two lines, with a view to their comparative cost; the wharf line involving expensive constructions, and unlimited demands for compensation, and the upper line a large original outlay, but a return of two-thirds the amount by the sale of ground rents.

It is intended, therefore, to form between the Minories and Blackfriars-bridge, through a mass of property, some portions of it costly, but the greater part of so inferior a character

that it is styled the "back slums" of the city, a new street, nearly as wide and as straight as Oxford-street, with a railway viaduct for atmospheric carriages in the middle, constructed with cast-iron girders, supported by columns along the side-pavement, resembling those of the Quadrant. A model of the viaduct, and proposed new buildings on either side, has been prepared for public inspection, and Messrs. Bridges and Mason, the solicitors of the Company, have already commenced serving the necessary notices for the property to be purchased.

The new street, which will give a frontage to Doctors' Commons, and open a view of St. Paul's from the south, will, in connection with the embankment line, if carried out as intended, form one of the main arteries of the metropolis. It would appear, as described, to take the most direct, as well as the most agreeable, course from east to west even for foot passengers; and passengers by the railway, we are told, will reach the Bank in five minutes from Charing-cross, or the sea, at Southend, within an hour and a half.

The chief city station will be immediately at the back of the statue of King William, facing London-bridge, but it is intended to have a station for omnibus traffic every 500 yards, throughout the whole line. The architectural elevations of the railway embankment, in reference especially to its ornamental effect in passing the Temple-gardens, will be supplied by Mr. Barry.

### ROYAL ENGINEERS TURNED RAILWAY SURVEYORS.

THE impossibility of obtaining a sufficient number of civilians to make the numerous surveys required by the end of next month has led to the most extravagant offers being made for efficient assistance. Within our own knowledge 15l. per diem, and all expenses paid, was bid unsuccessfully for one who understood this particular branch of his profession.

A report has been current during the last day or two that several of the privates in the Royal Engineers, at Woolwich, have lately purchased their freedom with railway gold, at the rate of 40l. per man.

A similar defection has taken place at Southampton. The *Hampshire Independent* says—"Several of the young men engaged in the Ordnance Map-office, in Southampton, have accepted engagements, which are almost forced upon them, and many of the privates and non-commissioned officers of the Royal Engineer Corps have bought out of the service, in order to take part in the lucrative employment of railway surveying, for which their practice upon the Ordnance survey has well qualified them."

**SUBTERRANEAN RAILWAY INSIDE PARIS.**—A railway, *intra muros*, to unite the termini of the Northern and Lyons railroads, has been projected. Branching from the terminus of the former, it descends parallel to the Rue Hauteville by a cutting, following the interior boulevards to the Place de la Bastille, which it will cross subterraneously, re-appearing at the towing-path of the Canal St. Martin, which will be crossed at a right angle, with an easy gradient, to the surface of the Lyons railway. This course presents a total length of about 4-659 metres. A branch will extend this railway to the Halles, following the Rue Montebello, in the quarter Montorgueil, which it will follow in its whole length, crossing private property between the Rues Mauconseil and Petit Lion, crossing the Rue Deux Portes St. Saviour at a right angle, and terminating at the Rue de Forges, beside the Place de Caire, which will be followed subterraneously in the level in the Boulevard Poissonnière. — *Press.*

**THE BROMPTON CANAL.**—The directors of the London and Birmingham Railway have, it is said, offered the Regent's Canal Company, the sum of two millions for their canal, thus doubling the offer made by the North Metropolitan Junction Railway.

\* This will be effected by the proposed extension of the South Essex Railway Company; but, perhaps, the most important feature of the plan is, that it will give the advantages of city, west-end, and water-side terminal to the lines of the Midland Counties, the Eastern Counties, and the Northern and Eastern, now connected with the Blackwall at Bow, by a Bill obtained last session.